(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 30 June 2005 (30.06.2005)

PCT

(10) International Publication Number $WO\ 2005/058232\ A2$

(51) International Patent Classification⁷:

A61K

(21) International Application Number:

PCT/US2004/041308

(22) International Filing Date:

10 December 2004 (10.12.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/529,235 11 December 2003 (11.12.2003) US 60/529,252 11 December 2003 (11.12.2003) US

- (71) Applicant (for all designated States except US): TER-CICA, INC. [US/US]; 651 Gateway Boulevard, Suite 950, South San Francisco, CA 94080 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): CLARK, Ross, G. [NZ/NZ]; 25 Glen Road, Devonport, Auckland (NZ).
- (74) Agent: BABA, Edward, J.; BOZICEVIC, FIELD & FRANCIS LLP, 1900 University Avenue, Suite 200, East Palo Alto, CA 94303 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND COMPOSITIONS FOR THE TREATMENT OF PROLACTIN-RECEPTOR RELATED DISORDERS

Human Growth Hormone

FPTIPLSRLF DNAMLRAHRL HQLAFDTYQE FEEAYIPKEQ KYSFLQNPQT 50

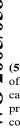
SLCFSESIPT PSNREETQQK SNLELLRISL LLIQSWLEPV QFLRSVFANS 100

LVYGASDSNV YDLLKDLEEG IQTLMGRLED GSPRTGQIFK QTYSKFDTNS 150

HNDDALLKNY GLLYCFRKDM DKVETFLRIV QCRSVEGSCG F 191

(SEQ ID NO:01)

\--**~**



(57) Abstract: The present invention provides methods and compositions for the treatment, diagnosis, prevention, or amelioration of one or more symptoms of a prolactin receptor-related condition, including, for example, a cancer such as breast cancer or prostate cancer, by administering a growth hormone-based prolactin receptor antagonist and zinc, or administering a growth hormone-based prolactin receptor antagonist to a tissue with an effective local concentration of zinc. The invention further provides pharmaceutical compositions of growth hormone-based prolactin receptor antagonists and zinc useful in the methods of the invention.